EVANSVILLE
Health Clinic

Alaska Rural Primary Care Facility
Code and Condition Survey Report

July 23, 2001

EVANSVILLE CLINIC

Code And Condition Survey Report

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I. EXECUTIVE SUMMARY

Overview

The Evansville Clinic is a small wood frame building reportedly constructed in 1985 which has been modified for use as a clinic. Due to the size of the community and its proximity to Bettles, this clinic serves both Evansville and Bettles. It has deteriorated due to extreme weather conditions and heavy use. The clinic has outgrown its current facility and has inadequate space for its storage, equipment, furniture, and use needs. The lack of adequate space for medical supplies, waiting, and the absence of a trauma room prevent the staff from providing the level of care needed on a daily and emergency basis.

Renovation and Addition

The existing clinic is 480 s.f. and would require an addition of 1020 s.f. to meet the 1500 s.f. minimum area recommended for a small clinic by the Alaska Rural Primary Care Facility study. The floor plan layout would require the remodel of approximately 100% of the interior space. Additionally, the poor condition of the building will require extensive upgrades to improve the foundation, thermal enclosure and other building systems. The cost of required renovations and code upgrades, combined with the cost of a new addition equal 171% of the cost of a new clinic.

New Clinic

Because the cost of renovation and addition is more than 75% of the cost of new construction, a new clinic of at least 1500 s.f. should be built to replace the existing clinic. The community prefers a new site near the current clinic location and has proposed a site which appears suitable for construction. Both the proposed site and the current site is near utilities and other community services. The new site is of adequate size to accommodate the 1500 s.f. structure.

II. GENERAL INFORMATION

A. The Purpose of the Report

ANTHC has entered into a cooperative agreement with the Denali Commission to provide management of the small clinic program under the Alaska Rural Primary Care Facility (ARPCF) assessment, planning, design, and construction. The purpose of the Code and Condition Survey Report is to validate the data provided by the community in the Alaska Rural Primary Care Facility Needs Assessment and to provide each community with a uniform standard of evaluation for comparison with other communities to determine the relative need among the communities of Alaska for funding assistance for the construction of new or remodeled clinic facilities. The information gathered will be tabulated and analyzed according to a set of fixed criteria that will yield a priority list for funding. Additionally, the relative costs of new construction vs. remodel/addition will be evaluated to determine the most practical and cost effective means to bring the clinics up to a uniform standard of program and construction quality. The information provided in this report is one component of the scoring for the small clinic RFP that the Denali Commission sent to communities in priority Groups 1 and 2.

B. The Assessment Team

The survey was conducted on May 25, 2001 by John Biggs, AIA, Architects Alaska and Ralph DeStefano, PE, RSA Engineering. Chet Crafts of ANTHC and Molly Patton of Tanana Chiefs Conference were the team escorts and reviewed alternative site locations with village leaders. Chet and Molly also made introductions and conducted the village briefings. Team members who assisted in the preparation of the report included Stephen Schwicht and Ian VanBlankenstein of NANA/DOWL, project managers for the survey team, and Jay Lavoie of Estimations, Inc.

C. The Site Investigation

The format adopted is similar to the "Deep Look", a facility investigation and condition report used by both ANTHC and the Public Health Service, in maintaining an ongoing database of facilities throughout the country. Facilities are evaluated with respect to the requirements of the governing building codes and design guidelines. Building code compliance, general facility condition, and program needs have been evaluated. This written report includes a floor plan of the clinic and a site plan indicating the existing clinic site. Additional information gathered during the site investigation that is referred to in the report, which includes sketches of building construction details, a building condition checklist, and proposed plans for village utility upgrades, are not included with this report. This information is available for viewing at ANTHC's Anchorage offices and will be held for reference.

III. CLINIC INSPECTION SUMMARY

A. Community Information

The community of Evansville has a current population of 28 as published in the 2000 U.S. Census. It is located 250 miles northwest of Fairbanks in the Fairbanks Recording District. It is a part of the Doyon Regional Corporation. Refer to the attached Alaska Community Database prepared by the Alaska Department of Community and Economic Development in Appendix C for additional community information.

B. General Clinic Information

The Evansville Clinic was reportedly constructed in 1985. This building is approximately 20' x 24' in size and is constructed of conventional frame walls, floor, and roof and an interior finished with wood paneling. The clinic has two exits and the main entry is generally accessible, although the ramp is too steep and lacks the appropriate handrails. In general, the clinic has outgrown its current space and is in poor overall condition.

C. Program Deficiency Narrative

The main programmatic deficiencies pertain to the inadequate overall size of the clinic, the lack of storage, absence of a trauma room, and the lack of ADA accessible clearances.

The following table illustrates a comparison between the current actual square footage (SF) and the 1500 s.f. minimum area recommended by the Alaska Rural Primary Care Facility study for a Small Clinic:

Table 1 – ARPCF Clinic Area Comparison

Purpose/Activity	#	Existing Net SF	#	ARPCF Small	Difference
Arctic Entry		-	1	50	50
Wait/Recep/Closet	1	56	1	100	44
Trauma/Telemed/Exam	1	70	1	200	130
Office/Exam	1	66	1	150	84
Admin./Records		-		-	-
Pharmacy/Lab	1	69	1	80	11
Portable X-ray		-		-	-
Spec. Clinic/Health Ed./Conf.		-	1	150	150
Patient Holding/Sleep Room		-	1	80	80
Storage		-	1	80	80
HC toilet	1	19	1	60	41
Janitorial Closet		-	1	30	30
Total Net Area				980	
Mechanical Room		15		114	99
Morgue		-		30	30

The Evansville Clinic has a current gross area of 480 s.f. This would require a gross building area expansion of approximately 1020 s.f. in order to meet the 1500 s.f. minimum ARPCF requirements for a Small clinic.

An analysis of the existing building's program functions follows. Please also refer to the floor plan in Section H:

- **Arctic Entries**: None provided.
- **Waiting:** The waiting area has been carved out of the corridor. No separate waiting area is provided.
- **Trauma/Telemed/Exam:** None provided.
- **Office/Exam:** The exam room is small but functional.
- **Administration/Records:** The administration/records area is small but functional.

- **Pharmacy/Lab:** None provided.
- **Specialty Clinics:** Specialty clinics require the use of one of the exam rooms and the corridor space. This is a disruption to ongoing clinic activities.
- **Patient Holding/Sleep:** None provided in the clinic.
- **Storage:** A small storage room keeps the main medical/medicinal supplies. It is well organized but smaller than necessary.
- **HC Toilet Room:** The toilet room lacks adequate accessible clearance and lacks accessible fixtures.
- **Janitor Closet:** None provided.
- **Ancillary Spaces:** There are no ancillary spaces in this clinic.

D. Architectural/Structural Condition

The clinic is approximately 20' x 24', single story, wood frame with wood truss roof. The foundation is treated 2x wood sills laid directly on gravel-filled oil drums, sunk into a gravel bed. The floor system is 2x12 beams and joists. The walls are 2x6 with batt insulation, and the roof is low-grade metal roofing laid directly on plywood, supported by 2x4 purlins @ 4'-0" o.c., resting on the prefab wood trusses. As confirmed by the community, the foundation is prone to instability, settlement, and frost heave. The roof's structural load capacity is questionable, the plywood sags between the purlins under any snow load, and the roof is prone to leaks. Furthermore, the community confirmed that roof leaks have lead to deterioration and sagging of the wall insulation which suggests that large portions of the exterior walls are likely uninsulated. Due to the multiple problems with the existing building, an addition or interior remodel is not recommended. Construction of a new clinic building would be the most cost effective solution to meet the community's needs for a Small Clinic.

E. Site Considerations

The existing clinic is in a good location. If a replacement clinic is constructed, a site near the existing clinic is preferred by the community due to its proximity to the main community building. A site has been designated which appears suitable for construction. Site utilities include village water, sewer, power, and telephone service directly to the building.

F. Mechanical Condition

Heating and Fuel Oil: A fuel oil fired furnace provides heat for the clinic. There were a number of deficiencies associated with the furnace that suggest it should be replaced and that its replacement needs to be in a larger mechanical area to provide minimum clearances to combustibles. Its condition is described in the Deficiency Evaluation and Cost Assessment

forms. The supply air from the furnace is routed above the ceiling to the various rooms in the clinic; return air back to the furnace is through a hole in the furnace room wall. Fuel oil is provided to the clinic furnace via a single wall 1000-gallon tank mounted on poorly constructed wooden cribbing. The tank is located too close to the building and is not supported properly. The piping and valves for the tank are also in poor condition and need to be replaced.

Ventilation: The clinic has no mechanical ventilation except for the exhaust fan in the restroom, which exhausts into the attic space. The only other source of ventilation for the occupied spaces is though operable windows. The clinic needs to be provided with a mechanical ventilation system and should not rely on operable windows alone.

Plumbing: Cold water is provided to the clinic and adjacent community building from an onsite well. The water is piped to the clinic first and then to the community building. Sewer service is provided by an onsite septic system and leach field. Hot water is generated from an electric hot water heater located in the restroom. Plumbing fixtures in the clinic include a toilet and lavatory in the restroom, neither meeting ADA requirements. There are no sinks in the exam rooms nor is there a mop sink for the facility; these are code and health problem since cross contamination can occur.

G. Electrical Condition

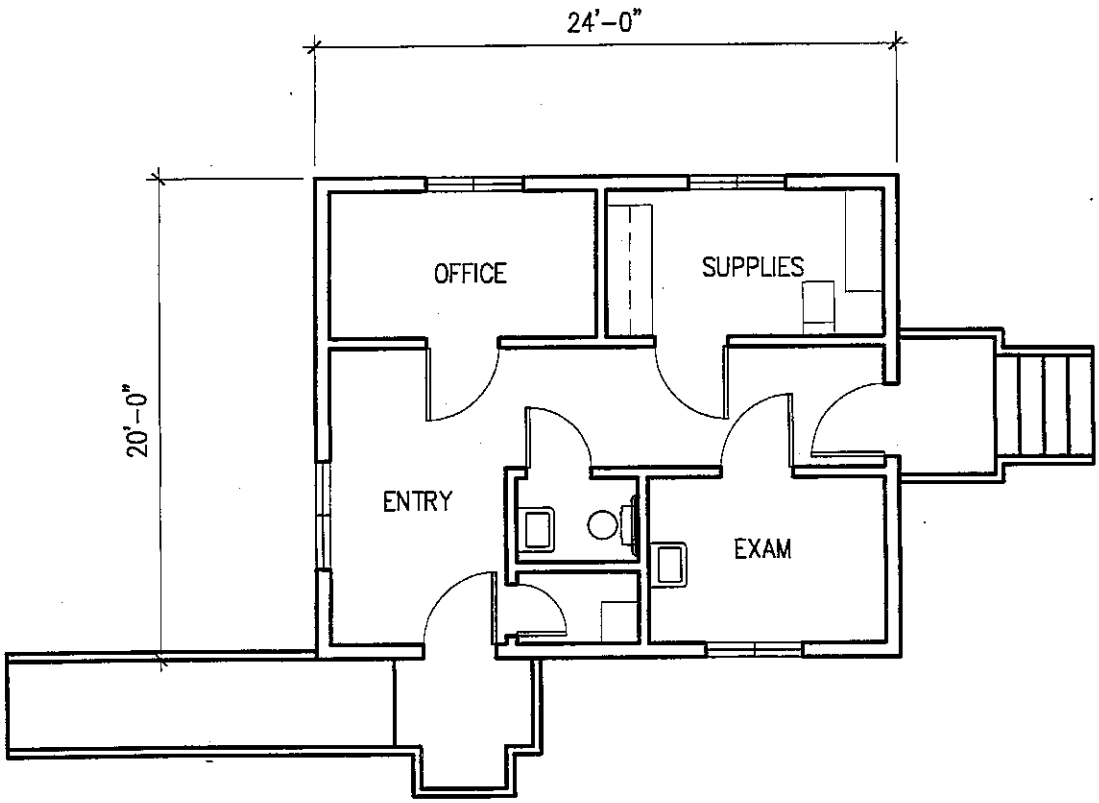
Power: 120/240-volt single-phase power is provided to the clinic through an underground service. The system appears to be improperly grounded; a grounding rod could not be located. A 100-amp breaker combined with a 100-amp panel is provided inside the building. The electrical panel and main breaker for the clinic are in fair condition. The wiring from the panel to the lights and receptacles is in romex, and is generally in fair to poor condition. Some of the receptacles in the facility do not have grounds; none of the receptacles in the restroom are GFCI protected.

Lighting and Emergency Fixtures: Florescent fixtures provide interior lighting. Lighting levels are low throughout the building, especially in the office and exam areas. The lighting should all be replaced. Incandescent fixtures at the entrance to the clinic provide exterior lighting. There are no emergency lights or emergency exit signs installed in the clinic. There is one battery-operated smoke detector installed in the hallway.

Telecommunications: The telecommunication system includes one phone line serving the clinic. The clinic does not have a Telemed system.

H. Existing Facility Floor Plan

See following sheet for the floor plan of the existing clinic.



FLOOR PLAN

1/8" = 1'-0"

EVANSVILLE

J. Community Plan

Refer to the attached community plan for location of the existing clinic and the proposed location for the new clinic. If the existing clinic site is the preferred location or if a new site has not yet been selected, only the existing clinic location will be shown.

IV. DEFICIENCY EVALUATION AND COST ASSESSMENT

The attached deficiency reporting forms are based on Public Health Service form AK H SA-43. The forms are numbered sequentially for each discipline starting with **A01** for Architectural and structural deficiencies, **M01** for Mechanical deficiencies and **E01** for Electrical deficiencies.

A. Deficiency Codes

Deficiencies are further categorized according to the following PHS Deficiency codes to allow the work to be prioritized for federal funding, should that apply. Deficiency codes used in this survey include:

- **02** **Fire and Life Safety:** These deficiencies identify areas where the facility is not constructed or maintained in compliance with provisions of the state mandated building codes including the International Building Code, The Uniform Fire Code, NFPA 101, The Uniform Mechanical and Plumbing Codes and The National Electrical Code.
- **03** **Safety:** These deficiencies identify miscellaneous safety issues.
- **04** **Environmental Quality:** This addresses DEC regulations, hazardous materials and general sanitation.
- **05** **Program Deficiencies:** These are deficiencies which show up as variations from space guidelines established in the Alaska Primary Care Facility Facility Needs Assessment Project and as further evaluated through observation at the facility site and documented in the facility floor plans.
- **07** **Disability Access Deficiencies:** The items with this category listing are not in compliance with the Americans with Disabilities Act.
- **08** **Energy Management:** These deficiencies address the efficiency of heating systems/fuel types and the thermal enclosures of buildings.
- **11** **Structural Deficiencies:** These are deficiencies with the fabric of the building. It may include the foundations, the roof or wall structure, the materials used, the insulation and vapor retarders, the attic or crawl space ventilation and the general condition of interior finishes. Foundation systems are included in this category.
- **12** **Mechanical Deficiencies:** These are deficiencies in the plumbing, heating, ventilating, air conditioning, or medical air systems.
- **13** **Electrical Deficiencies:** These are deficiencies with electrical generating and distribution systems, fire alarm systems and communications systems.
- **14** **Utilities:** This category is used for site utilities, as opposed to those within the building and may include sewer lines and water and power distribution.

B. Photographs

Each sheet has space for a photograph. Some deficiencies do not have photos. Photographs do not cover all areas where the deficiencies occur but are intended to provide a visual reference to persons viewing the report who are not familiar with the facility. Additional photographs of the clinic and the surrounding area are included in Appendix B.

C. Cost Estimate General Provisions

New Clinic Construction

- **Base Cost**

The Base Cost provided in Section VI of this report is the direct cost of construction, inclusive of general requirements (described below) and contingency for design unknowns (an estimating contingency) The base cost is exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The Project Factors and Area Cost Factor are multipliers of the base costs.

General Requirements are based on Anchorage costs without area adjustment. It is included in the Base Cost for New Clinics. These costs are indirect construction cost not specifically identifiable to individual line items. It consists of supervision, materials control, submittals and coordination, etc. The general requirements factor has not been adjusted for Indian Preference.

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned.

- **Project Cost Factors**

  Equipment Costs for new medical equipment has been added at 17% of the cost of new floor space.

  Design Services is included at 10% to cover professional services including engineering and design.

  Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

  Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Estimated Total Project Cost of New Building**

This is the total estimated cost of the project, including design services. The construction contract will be work subject to Davis Bacon wages, and assumes construction before year-end 2001. No inflation factor has been applied to this data.

Remodel, Renovations, and Additions

- **Base Cost**

The Base Cost provided in the specific deficiency sheets is the direct cost of construction, exclusive of overhead and profit, mark-ups, area cost factors and contingencies. Material costs for the project are all calculated FOB Anchorage and labor rates are based on Davis Bacon wages, regionally adjusted to Anchorage. Most of the deficiency items do not constitute projects of sufficient size to obtain efficiency of scale. The estimate assumes that the projects are completed either individually, or combined with other similar projects of like scope. The numbers include moderate allowances for difficulties encountered in working in occupied spaces and are based on remodeling rather than on new construction costs. Transportation costs, freight, Per Diem and similar costs are included in the base costs. The General Requirements, Design Contingency and Area Cost Factors are multipliers of the base costs.

The cost of Additions to clinics is estimated at a unit cost higher than New clinics due to the complexities of tying into the existing structures.

Medical equipment is calculated at 17% of Base Cost for additions of new space only and is included as a line item in the estimate of base costs.

- **General Requirements Factor**

General Requirements Factor is based on Anchorage costs without area adjustment. The factor is 1.20. It is multiplied by the Base Cost to get the project cost, exclusive of planning, architecture, engineering and administrative costs. This factor assumes projects include multiple deficiencies, which are then consolidated into single projects for economies of scale. The general requirements factor has not been adjusted for Indian Preference.

- **Area Cost Factor**

The Area Cost Factor used in the cost estimates for this facility is shown in Section VI of this report. The area cost factors are taken from a recent study completed for the Denali Commission for statewide healthcare facilities. The numbers are the result of a matrix of cost variables including such items as air travel, local hire costs, room and board, freight, fire protection equipment, foundation requirements, and heating equipment as well as contractor costs such as mobilization, demobilization, overhead, profit, bonds and insurance. These parameters were reconsidered for each village, following the site visit, and were modified, if necessary.

- **Contingency for Design Unknowns (Estimating Contingency)**

The Design Unknowns Contingency is an estimator's contingency based on the schematic nature of the information provided, the lack of any real design, and the assumption that any project will encompass related work not specifically mentioned. The factor used is 1.15.

- **Estimated Total Cost**

This is the total estimated bid cost for work completed under Davis Bacon wage contracts, assuming construction before year-end 2001. This is the number that is entered in the front of the deficiency form. No inflation factor has been applied to this data.

- **Project Cost Factors**

Similar to new clinics, the following project factors have been included in Section VI of this report.

Design Services is included at 10% to cover professional services including engineering and design.

Construction Contingency is included at 10% of the Base Costs to cover changes encountered during construction.

Construction Administration has been included at 8% of the Base Costs. This is for monitoring and administration of the construction contract.

- **Estimated Total Project Cost of Remodel/Addition**

This is the total estimated cost of the project including design services, the construction contract cost for work completed under Davis Bacon wages and assuming construction before year-end 2001. No inflation factor has been applied to this data.

V. SUMMARY OF EXISTING CLINIC DEFICIENCIES

The attached table summarizes the deficiencies at the clinic and provides a cost estimate to accomplish the proposed modifications. If all deficiencies were to be addressed in a single construction project there would be cost savings that are not reflected in this tabulation. The total cost of remodel/addition shown in Section VI is intended to show an overall remodel cost that reflects this economy. Refer to Section VI for a comparison of remodel/addition costs to the cost of new construction. The specific deficiency sheets are included in Appendix A.

(Summary Listing of Deficiencies by Code)

Clinic: **Evansville**

Deficiency Code		Reference	Work Description	Cost
02	Fire/Life Safety	A06	Exit access	$440.00
02	Fire/Life Safety	E02	Repair breaker panel	$3,191.00
02	Fire/Life Safety	E03	Add exit signs and emergency lights	$2,999.00
02	Fire/Life Safety	M01	Add bathroom exhaust	$948.00
02	Fire/Life Safety	M04	Exterior fuel tank	$4,592.00
02	Fire/Life Safety	M05	Combustion air	$1,377.00
02	Fire/Life Safety	M07	Add plumbing vents	$2,237.00
04	Environmental Qualit	A01	Doors and frames	$1,610.00
04	Environmental Qualit	A03	Interior finishes	$53,843.00
04	Environmental Qualit	E01	Replace lighting	$8,734.00
04	Environmental Qualit	M02	Add ventilation.	$12,684.00
05	Program	A05	Building lacks arctic entries	$32,513.00
05	Program	A09	Building relocation	$46,761.00
07	Handicapped	A04	Stairs, ramps, and handrails	$43,013.00
07	Handicapped	M03	ADA plumbing fixtures	$20,338.00
11	BEMAR Structural	A02	Structural deficiencies	$64,032.00
12	BEMAR Mechanical	M06	Replace water pressure tank.	$1,691.00
12	BEMAR Mechanical	M08	Repair sewer line	$14,383.00
12	BEMAR Mechanical	M09	Replace Furnace	$5,976.00

ALASKA AREA

ANTHC

CODE AND CONDITION SURVEY

ALASKA NATIVE TRIBAL HEALTH CONSORTIUM

(Summary Listing of Deficiencies by Code)

Code / Conditions Subtotal:	$321,362.00
Remodel Subtotal:	$63,227.00
Addition Subtotal:	$515,435.00
Clinic Total:	$900,024.00

VI. NEW CLINIC ANALYSIS

The decision on whether to fund new clinic construction or a remodel/addition of the existing clinic is to be determined by comparing the cost of a new facility designed to meet the program requirements of the Alaska Rural Primary Care Facilities minimum area requirements with the projected combined cost of renovating, remodeling and adding onto the existing building to provide an equivalent facility. If the cost of the remodel/addition project is greater than 75% of the cost of constructing an altogether new facility then a new facility is recommended. That ratio is computed as follows:

- **The cost of a new clinic in Evansville is projected to be:**

Base Anchorage Cost per s.f.		$183/ s.f.
Medical Equipment Costs @ 17%		$31
Design Services 10%		$18
Construction Contingency 10%		$18
Construction Administration. 8%		$15
Sub-total		$265/ s.f.
Area Cost Factor for Evansville	1.63*	
Adjusted Cost per s.f.		$432/ s.f.

Total Project Cost of NEW BUILDING 1,500 x $432 = $648,000

- **The cost of a Remodel/Renovation/Addition is projected to be:**

Projected cost of code/condition renovations (From the deficiency summary)
90% of cost of code/condition improvement** $289,226 Renovation

Projected cost of remodeling work (See A08)
480 s.f. clinic @ 100% remodel = 480 s.f. $63,227 Remodel

Projected cost of building addition (See A07)
1,500 s.f. – 480 s.f. = 1,020 s.f. $515,435 Addition
Design 10%, Const. Contingency 10%, Const. Admin. 8% $243,009

Total Project Cost of REMODEL ADDITION **$1,110,897**

- **Ratio of remodel:new is $1,110,897 : $648,000 = 1.71X**

The cost of a remodel/addition for this clinic would cost 171% the cost of a new clinic, therefore, a new clinic is recommended for this community

* The Area Cost Factor was refined by Estimations, Inc. in July 2001 based on information obtained during the site visit.

** The 90% factor represents economy of scale by completing all renovation work in the same project.